



Physical Anthropology Section – 2009

H57 Forensic Anthropology at the Pima County (Arizona) Office of the Medical Examiner: The Identification of Foreign Nationals

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After attending this presentation, attendees will gain an understanding of some of the issues involved in the identification process for a large number of foreign nationals.

This presentation will impact the forensic community by sharing lessons learned through the identifications of hundreds of foreign nationals over the past eight years.

Over the past eight years, the caseload of the forensic anthropologists at the Pima County (Arizona) Office of the Medical Examiner (PCOME) has changed considerably due to the dramatic increase in the number of migrants who have perished in the Sonoran Desert while attempting a clandestine entry into the United States. The last eight years have witnessed greater than a ten-fold annual increase in the number of these deaths and required forensic anthropological examinations for nearly half of the 1100 migrant cases through 2007. Approximately one-quarter of all of the anthropological examinations within our office during 2000 involved migrants, but by 2007 more than three-quarters of our exams were on these foreign national cases. This increase in the annual casework involving foreign nationals takes on greater importance when Tucson's rapidly-growing metropolitan area is considered. Add to this the fact that the PCOME provides medicolegal examinations for ten of the fifteen counties in Arizona, including one of the fastest growing counties (Pinal) in the U.S., and one begins to appreciate that the two forensic anthropologists employed at the PCOME have more than enough work to do. The analyses of cremains, personal identification through radiographic comparisons, trauma analyses, the generation of biological profiles, and legal testimony are some of the varied duties that the forensic anthropologist performs on the non-migrant cases. However, the migrant cases have required more effort, on average, and not merely because of their greater number but also because of the challenges encountered in attempting to effect an identification. Adequate antemortem records are non-existent in many instances, at times necessitating that the generated biological profile must be the primary means of comparison to family recollections and reconstructed antemortem records. These circumstantial identifications that are partially based on the anthropological results are not ideal but necessary given the constraints of time and funding. DNA analyses have been utilized in more than sixty cases over the past seven years, but the cost and the wait have at times proved prohibitive. Even utilizing circumstantial identifications, our overall rate of identification still hovers around 70%. On the plus side, this rate may be expected to increase as DNA databases are created that compare sequences or profiles from postmortem samples of unknowns to those of family reference samples from missing migrants. Another plus is that much has been learned from the anthropological research conducted on many of these foreign nationals, whose ancestry appears to be overwhelmingly Southwest Hispanic (defined here as ancestry relating to Mexico and Central America, and excluding the Caribbean). Researchers have collected data on more than 500 of these individuals, with slightly less than half being identified. Data collected include craniometrics, infracranial metrics, cranial discrete traits, stature, dental health, and mtDNA sequences. By analyzing the skeletons of more than 200 identified foreign national Southwest Hispanics over the past eight years, our office is now better able to characterize the more than 300 unidentified presumed migrants as likely being Hispanic. Forensic anthropologists around the U.S. may benefit from this increase in knowledge because Hispanics, from both Meso-America and the circum-Caribbean, can be expected to continue migrating throughout the lower 48 states. Undoubtedly, some of these individuals will be encountered in future forensic anthropological examinations.

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